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Agricultural Memorandum No 540

Grass Growing Days (revision)

L P Smith

Ag Mem 57 gave formulae for the calculation of grass growing days. These can be simplified as follows:

R = rainfall in month

r = amount of water in soil at end of previous month which is present in the top layers which contain 2.0 inches as a maximum

PT = potential transpiration

Then days when there is no moisture restriction to growth in a month are

$$30 \times \frac{R + r}{PT}$$ with a maximum of the total days in the month

Note: when soil moisture deficit is d and d is less than 2

then $r = 2 - d$

If d is greater than 2 then $r = 0$, unless R was greater than PT in the previous month, when

$r = R - PT$, representing the excess water which is stored in the top soil layers, again with a maximum of 2.

Any comments or suggestions on this paper should be referred to the author.

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